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THIRTY-SIXTH

# ANNUAL REPORT

OF THE

BOARD OF MANAGERS

OF THE

# Monongahela Navigation Co.

TO THE STOCKHOLDERS,

WITH ACCOMPANYING DOCUMENTS,

*Presented January 13, 1876.*



PITTSBURGH:

PRINTED BY BAKEWELL & MARTHENS, 71 GRANT STREET.

1876.

*PRESIDENT.*

J. K. MOORHEAD.

*SECRETARY AND TREASURER.*

WM. BAKEWELL.

*MANAGERS.*

FELIX R. BRUNOT,  
JOHN HARPER,  
N. B. HOGG,  
M. K. MOORHEAD,  
JOHN MOORHEAD,

J. B. MURDOCH,  
WM. MORRISON,  
JAMES VEECH,  
DANIEL WALLACE,  
M. WHITMORE.

# ANNUAL REPORT.

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TO THE STOCKHOLDERS OF THE  
MONONGAHELA NAVIGATION COMPANY:

The Directors submit the following Report of the operations of the Company during the year 1875:

In the last Annual Report it was stated that during the year 1874, the navigation had been suspended but two days by ice. We have a much longer period to report for the last year. The river closed January 9th; opened on the 24th, closed again February 6th; opened the 25th, and closed December 18th; opened on the 21st—making forty days suspension from this cause during the year.

There has also been some interference by high water; the locks have been submerged seven times during the year, at Lock No. 4: January 20th, 3 inches; July 23d, 6 feet; July 29th, 2 feet; July 31st, 13 feet 6 inches; November 25th, 2 feet 6 inches; December 25th, 3 feet, and December 28th, 3 feet 6 inches.

The freshet in January, which broke up and carried the heavy ice off the upper pools, did considerable damage to the dams, as will be found reported under the head of repairs. There was at this time a large quantity of ice lodged along the shore above Dam No. 3, which by the continued cold weather was frozen into solid masses; a slight rise on the 28th of February set these masses in motion, and the water not being high enough to carry them clear of the dam, they crushed and broke the comb of it, carrying off the lower sheeting, and then the entire lower slope of nearly one hundred feet of the dam next the abutment. No serious damage was done by any of the other freshets, except the very high one in July,

which passed over Lock No. 3 to a depth of nine feet ten inches, washing the guard-crib outside of the lock, and doing other damage more particularly referred to under the head of repairs.

As navigation was suspended nearly all the months of January and February, of course the receipts were small, and as compared with the preceding year very discouraging, viz.:

1874.	Tolls for January,.....	\$25,302 48	
	“ “ February, .. .. .	25,901 62	
			\$51 204 10
1875.	Tolls for January,.....	\$ 3,278 16	
	“ “ February, .. .. .	240 66	
			3,518 82
	Showing a decrease in two months, of.....		\$47,685 28

During the balance of the season, however, as there was a sufficiency of water at all times for continued navigation, the decrease in the first two months was nearly recovered, the result of the year being as follows:

Tolls received from Coal and slack,.....	\$130,162 14
Coke,.....	3,447 75
Freight, empty boats, timber, &c .....	55 379 02
Passengers,.....	5,844 16
Total,.....	\$194,833 07
Receipts for 1874 being.....	215 463 93
Decrease for the year 1875,.....	\$ 20,630 86

It will be recollected that when this navigation was opened, before the completion of any railroads leading eastward from this city, that not only trade and commerce was carried upon the rivers and canals, but passengers also sought the same means of transit. After this navigation was opened to Brownsville, which event was celebrated by an excursion through the locks on the 13th November, 1844, this route was sought at once as the preferred one. Passengers were attracted from the canal route, and also from the stage lines at Wheeling, taking the Monongahela to Brownsville, thence by stage seventy-five miles to Cumberland, where the Baltimore & Ohio Rail Road was reached. So also merchandise from the East, cotton and other products from the West and South, for some years, were carried upon this route until the opening of the Penn-

sylvania Rail Road. The coal business was then in its infancy, and the main receipts of the Company were from freight and passengers. For instance, the receipts for the year 1848 were, viz.:

From Coal,.....	\$12,438 43	
“ Freight,.....	25 913 71	
“ Passengers,.....	18 271 79	
	—————	\$56,623 93

A comparison of this statement with the receipts for the past year as given above, will show what a revolution has taken place in the business upon the improvement. Notwithstanding the great increase of manufacturing, trade and population in the valley of the Monongahela, yet the toll on passengers is less than one-third what it was at that time. The transit of merchandise and produce between the East and West has entirely disappeared from our navigation, as other and more attractive routes have been brought into action.

This result was not unexpected, and we deem it proper to refer to the predictions made in our early reports on that subject.

In referring to the above statements of tolls, the Board say, “that coal has paid less than one-fourth of the amount received, whilst four-fifths of the labor and expenses of attending our locks are chargeable to that item, and that this trade has not merely been facilitated, but in point of fact almost *created* by the improvement, and that moreover, at no distant day, in consequence of other lines of improvement which are now in process of construction, the Company will be deprived of that fruitful source of revenue arising from the transit of passengers and merchandise between the East and West, and thrown upon its local trade for support.”

The improvement was constructed for the development of the mineral resources of the Monongahela Valley, and its local trade. The parties who then risked their money and prosecuted the work under the most adverse circumstances, with very precarious chances of remuneration, counted wiser than they knew, and their anticipations with regard to the increase of the coal trade have been more than verified.

It is another confirmation of the fact, “that a coal-bearing improvement is always successful.” Whilst the immensely heavy trade now passing the improvement (being nearly three millions of tons per annum) has largely increased the expense of attending

locks, cost of repairs, &c., yet the Board has been able to pay the stockholders, on the business of the year, one dividend of five, and one of four per cent. So that, notwithstanding the withdrawal from this route of that which formed its greatest source of revenue in its early days, yet the increase of the mineral and local business, for which it was mainly constructed, will, with careful and economical management of the Company, still afford sufficient revenue to pay the greatly increased expenses incident to the enlarged tonnage moved, and afford reasonable dividends to the stockholders, who for many years received no return upon their investment.

#### EXTENSION.

The lock and dam placed under contract by the Government, on the Monongahela river above the Pennsylvania State line, has not yet been completed, but it is presumed will be during the next year.

The U. S. Engineer-in-charge, Col. Wm. E. Merrill, has located another lock and dam below the mouth of Cheat river, and recommended its construction. As this recommendation is before Congress, and an appropriation will probably be made for the purpose, it will then become the duty of this Company to construct their upper dam near the mouth of Jacob's creek, which will involve the expenditure of at least one hundred thousand dollars, unless the Government should construct it also.

As the two locks and dams above Brownsville, Nos. 5 and 6, constructed in 1856 at a cost of about two hundred thousand dollars, have up to the present time been entirely unremunerative, the cost of attendance and repairs being in excess of the receipts, there is not much encouragement for the expenditure of an additional sum for another lock and dam. But as it will be of great benefit to the citizens of West Virginia, will utilize the dams built by the Government above our improvement, extend good navigation to Morgantown, 102½ miles from Pittsburgh, and make an outlet for the iron ores and Connellsville or coking coals that are said to be abundant above the mouth of Cheat river, it may so increase the trade and traffic upon our navigation as to fully justify the expenditure.



## IMPROVEMENT OF THE OHIO RIVER.

An appropriation was made at the last session of Congress to commence the construction of a lock and movable dam on the Ohio river, upon the plan recommended and adopted by the Engineer Department of the Government, for the radical improvement of this great stream. The location is about five miles below this city, and arrangements for placing the work under contract were made, when operations were suspended by order of the Engineer-in-Chief, for want of an act of the Legislature of Pennsylvania granting jurisdiction, and the right to condemn and take such ground as may be necessary for the purpose, upon an appraisement of viewers appointed by the Court, when purchases cannot be made upon satisfactory terms.

It is proper to say that objections are made, by some, to the system of improvement adopted ; but as movable dams, although successfully in operation in France and other countries, have not been tested here, there can be no good reason for opposing the construction of the first one, which will fully test the value of the system ; especially when its construction will so largely and materially improve the harbor of Pittsburgh as to compensate fully for its cost.

## REPAIRS.

## LOCK No. 1.

A new office, to replace the old one carried off by high water August 4th, was built here, costing \$560 ; about two hundred pieces of oak sheeting were placed on the lower side of the dam, cribs refilled with stone, a new timber abutment built at the south side of the river to replace the old one that was very much decayed. The gates of the large lock were repaired, one new wicket put in, wicket-rods and stay-rods repaired, a large quantity of mud removed from above the locks by the dredge-boat.

## LOCK No. 2.

One new gate put in the small lock, the other gates repaired in both ; a deposit of gravel removed by the dredge-boat from below them, and mud from above them, which had been caused by the high water ; guard-crib outside the small lock repaired ; a new abutment built at the end of the dam on the opposite side of the

river. The dam repaired by filling the cribs where stone had been removed, and new sheeting put on where necessary.

### LOCK No. 3.

The repairs at this lock and dam were heavy and expensive. On the 28th of February a swell in the river carried off large masses of ice that had been deposited along the shore. In passing over the dam near the abutment, the lower sheeting was torn off about one hundred feet in length, and the cribs and stone filling washed out to a great depth, causing the settling of both the dam and abutment. The force of the water was broken by sinking a large barge above loaded with stone, which prevented further damage until the water subsided so that permanent repairs could be made. A new abutment was then built, new crib work extending from this abutment about one hundred and thirty feet, portions of it being twenty-eight feet in depth, filled with stone and re-sheeted. The repair was very thorough, and no danger need be apprehended here again, from the great depth and solidity of the present foundation.

On the 29th of July, when the greatest freshet we had had for many years on the Monongahela occurred, the water being nine feet nine inches above the lock wall, and the current very rapid, the guard-crib outside the lock was removed, and the bottom of the river washed out to a depth of more than twenty feet, undermining the outside wall of the lock so as to cause it to settle and leak; to make this secure again not only required the rebuilding of the guard-crib, but made it necessary to sink a crib in the deep water outside of the guard-crib, to support it and the lock wall. In accomplishing this repair the lock was closed twelve days, during which time freight and passengers were transferred around it from one boat to another.

New cribs were also built at the upper and lower ends of the lock wall, to prevent the water from cutting out the embankment between the lock wall and the shore, and protect the lock yard, the channel that had been cut out by the high water was refilled. Cement was run under the bottom of the lock and outside wall, which improved its working greatly, and it is now in good condition. 6,120 yards of stone, and 31,612 feet of timber, were used in the repairs of this lock and dam.



## LOCK No. 4.

A troublesome repair was made at this lock. The lower mitre-sills have been in bad condition for some time, and after two unsuccessful attempts to repair them with the water in the lock, it was found necessary to pump it out, remove the old and damaged sills, and put in new ones. This was successfully accomplished, but it caused a suspension of navigation for about two weeks.

One new gate was placed in the upper end of the lock, guard-crib repaired, and the channel below improved by dredging out a large quantity of gravel and stone.

## LOCK No. 5.

Repairs to the lock were slight. The dam having been injured by the ice, required some eighty feet of upper and lower sheeting, new comb and range logs, and refilling with stone.

The abutment was also repaired and sheeted, and about thirty feet of the upper end of the ice breaker above the lock rebuilt, causing no detention of navigation on account of repairs. All now in good order.

## LOCK No. 6.

A new lower gate was placed in this lock in April, two new head blocks and one crib.

The dam was considerably damaged by the ice, requiring some new range-logs and crib timber, and twelve hundred perches of stone to refill the cribs; also eighty feet in length of dam was newly sheeted on the lower side, and one hundred and twenty feet on the upper side; a new crib from lower end of shore wall into the bank, about sixty feet in length, to protect the lock-guard and prevent the water from cutting a channel through it, was built.

There has been no change during the year in its various officers and lock tenders.

Limerick Connell, who was placed temporarily in charge of Lock No. 1, has given satisfaction, and continues to hold the position of lock tender.

The repairs made at Dam No. 1 were superintended and managed by Robert Connell; at No. 2, by the lock keeper, Chas. W. Wood; at No. 5, by Samuel Milliken; and at No. 6, by Thos. Speakman, the respective lock tenders.

The heavy repairs necessary at Nos. 3 and 4 occupied the entire time of Mr. Pancoast, the Superintendent of Repairs, during the low water season, and received his close and skilful attention. During part of the time he was assisted by Major Thomas McGowan, whose valuable services have so frequently been availed of by the Company.

The Reports of the Treasurer and Cargo Inspector herewith, are referred to for the financial condition of the Company, and statistics of its business for the year.

By order of the Board.

J. K. MOORHEAD,

*President.*

January 13th, 1876.

# REPORT OF CARGO INSPECTOR.

## STATEMENT OF THE BUSINESS

*On the Monongahela Slackwater, during the year ending Dec. 31, 1875.*

Receipts from	Tolls.
Coal and Slack, - - - - -	\$130,162 14
Coke, - - - - -	3,447 75
Freight, Empty Crafts, Timber, &c., - - - - -	55,379 02
Passengers, - - - - -	5,844 16
<b>Totals, - - - - -</b>	<b>\$194,833 07</b>

### *Receipts at the several Locks.*

Lock No. 1, - - - - -	\$ 50,799 99
“ 2, - - - - -	69,047 36
“ 3, - - - - -	27,050 36
“ 4, - - - - -	41,834 17
“ 5, - - - - -	1,152 27
“ 6, - - - - -	4,948 92

**\$194,833 07**

### *Trade of Pool No. 1.*

Tow Boats, - - - - -	3,921
Empty Crafts, - - - - -	4,894

**8,815**

No. of Clearances issued Eastward, - - - - -	3,773
“ “ “ Westward, - - - - -	5,109

**Total Clearances issued in 1875, - - - - - 8,882**

### *Comparative Statement of Toll Receipts for the years 1874 and 1875.*

	Coal.	Coke.	Freight, &c.	Passengers.	Total.
Net Tolls for 1874...	\$134 566 47	\$ 2,943 11	\$70 938 40	\$ 7,035 95	\$215,463 93
Net Tolls for 1875...	130,162 14	3 447 75	55 379 02	5,844 16	194,833 07
	\$ 4,404 33	\$ 524 64	15,559 38	\$1,191 79	\$ 20,630 86

## STATEMENT

*Of Freight shipped East and West on the Monongahela Slackwater during the year ending December, 1875.*

SHIPPED EASTWARD FROM PITTSBURGH.			SHIPPED WESTWARD TO PITTSBURGH.		
Whiskey,	bbls.	111	Sand,	bushels,	703,100
Boards,	feet,	3,091,400	Whiskey,	bbls.	6,815
Timber,	"	1,023,800	Staves,	No.	42,000
Pig Iron,	tons,	476	Posts,	"	6,140
Fire Clay,	"	1,399	Brick,	"	828 100
Iron Ore,	"	20,176	Sheep,	"	9,517
Pit Posts,	No.	47,700	Wood,	cords,	250
Sheep,	"	668	Stone,	perches,	15,457
Classed Freight, lbs.		22,069,000	Lumber,	feet,	200,900
			Timber,	"	566,400
			Classed Freight, lbs.		12,815,700

## PASSENGER RETURNS

*Of the several Boats navigating the Monongahela Slackwater in 1875.*

Boats.	Passengers.		No. of Locks.	Davidson's.	Geneva.	Total.
	Through.	Way.				
Elector, .....	2,499	4,270	7,433	862	505	\$1,375 36
E. Bennett, ...	2,738	5,064	8,729	1,593	820	1,698 48
Geneva .....	2,988	4,149	7,240	1 598	852	1,663 90
Elizabeth, .....	.....	11,162	8,100	.....	.....	567 00
Chieftain, .....	.....	4,829	4,829	.....	.....	338 03
Ella Layman..	.....	2,877	2,877	.....	.....	201 39
	8 225	32,351	39 208	4 053	2,177	5,844 16

*Passenger Business for 1874 and 1875 compared.*

	1874.	1875.	Difference.
Through. Davidson's & Geneva passengers...	15,815	14,455	1,360 decrease.
Way passengers.....	31,102	32,351	1,249 increase.
Total .....	46,917	46 806	111 decrease.
Tolls on thro' pass'gers,	\$3,412 90	\$3,099 60	\$ 313 30 decrease.
“ way “	3,623 05	2 744 56	878 49 “
Total.....	\$7,035 95	\$5,844 16	\$1,191 79 decrease.

*Comparative Receipts in 1874 and 1875.*

	1874.	1875.
January.....	\$25,302 48	\$ 3,278 16
February.....	25,901 62	240 66
March.....	28,458 70	25 616 16
April.....	30,166 41	31 744 50
May .....	18,927 98	21,220 79
June.....	9,848 65	13,162 38
July .....	9,612 28	12,064 60
August.....	7,234 43	11,744 61
September.....	9,936 07	10,637 95
October.....	6,094 75	16,183 05
November.....	15,844 54	24,739 30
December ....	28,136 02	24,200 91
	<u>\$215,463 93</u>	<u>\$194,833 07</u>

## STATEMENT

*Of Coal, Coke and Slack shipped in the several Pools of the Monongahela Slackwater during the year 1875.*

Months.	Pool No. 1.	Pool No. 2.	Pool No. 3.	Pool No. 4.	Total.
January.....	241,000	707,000	113,100	55 000	1,116,100
February.. .	4,500	25,000	3,000	26,500	59,000
March.....	1,865,500	5,224,500	158,800	1,306,100	8,554,900
April.....	1,449,900	5,328,500	1,851,600	2,058,800	10,688,800
May.....	750,200	3,051,500	1,311,200	1,431 000	6,543,900
June.....	107,000	1,122,000	380,900	863,300	2,473,200
July.. ..	979,000	1,783,500	384,800	608,500	3,755,800
August.....	253,000	2,272,000	231,700	386,500	3,143,200
September....	124,000	858,200	462,100	793,500	2,237,800
October.....	1,365,500	3,424,500	709,100	1,284,800	6 783,900
November...	1,628 700	3 980,700	1,094,100	1,797,700	8 501,200
December...	432,000	3,952,500	1,211,500	1 955,200	7,551,200
Total,	9,200,300	31,729,900	7,911,900	12,566,900	61,409,000

*Coke Business for 1875.*

Pool No. 2.	Amount.
Bushels.....2,298,500	\$3,447 75

Bushels Coal.....	61,409,000	Amount, \$130,162 14
“ Coke.....	2,298,500	“ 3,447 75
Total.....	63,707,500	\$133,609 88

*Comparison of the Coal and Coke Business in 1874 and 1875.*

	1874.	1875.	Decrease in 1875.
Total No. of bushels.....	67,821,200	63,707,500	4,113,700
Net tolls on Coal and Coke..	\$137,489 58	\$133,609 88	\$3,879 70

I certify the foregoing to be correct.

PITTSBURGH, Jan. 13, 1876.

B. L. WOOD, JR.,  
Cargo Inspector.



# ABSTRACT OF CASH ACCOUNT FOR YEAR ENDING JAN. 7, 1876.

Dr.

Cr.

Balance, Jan. 14, 1875.....	\$ 48,454 66	Expenses.....	\$ 35,617 62
B. L. Wood, Jr.....	275 00	Repairs.....	42,370 20
Interest.....	1,543 92	Dividends Paid.....	92,237 50
Rent.....	200 00	Coupons Paid .....	6,765 00
Suspense Account.....	30 00	Bonds Paid.....	6,500 00
Tolls.....	194,833 07	Tax on Capital Stock.....	2,410 32
		Tolls Uncollected.....	1,775 29
		Tolls Lost.....	1,366 96
		Interest. ....	202 50
		B. L. Wood, Jr.....	1,642 43
		Balance January 7, 1876 .....	54,448 83
	\$ 245,336 65		\$ 245,336 65

I certify the foregoing to be correct.

PITTSBURGH, Jan. 7, 1876.

W. BAKEWELL,

Treasurer.

## BALANCE SHEET, JANUARY 7, 1876.

Dr.

Cr.

Construction.....	\$1,115,452 00	Capital Stock.....	\$1,004,300 00
Cash.....	54,448 83	Scrp.....	1,152 00
Jay Cooke & Co.....	1,933 11	Mortgage Bonds.....	103,000 00
Bills Receivable.....	26,500 00	Dividends Unpaid.....	3,218 50
Retired Bonds.....	5,000 00	Coupons Unpaid.....	2,475 00
Uncollected Tolls.....	1,775 29	Contingent Fund.....	25,000 00
B. L. Wood, Jr.....	1,642 43	Floating Debt.....	5,773 17
		State Treasurer.....	8,134 83
		Profit and Loss bal.....	53,698 16
	<u>\$1,206,751 66</u>		<u>\$1,206,751 66</u>

I certify the foregoing to be correct.

PITTSBURGH, Jan. 7, 1876.

W. BAKEWELL,

*Treasurer.*

# ACCOUNT OF PROFIT AND LOSS FOR THE YEAR ENDING JAN, 7, 1876.

Dr.

Cr.

Expenses.....	\$ 35,617 62	Balance Jan. 14, 1875.....	\$ 59,103 65
Repairs. ....	44,870 20	Rent.....	200 00
Coupons, Interest on Bonds.....	6,075 00	Interest .....	1,543 92
Interest.....	202 50	Tolls .....	194,833 07
Tax on Capital Stock.....	10,545 15	Suspense Account .....	30 00
Lost Tolls .....	1,366 96		
Special Repairs, Lock No. 4.....	12,948 05		
Dividend No. 40, Jan., 1875.....	40,172 00		
“ 41, July, 1875 .....	50,215 00		
Balance Jan. 7, 1876.....	53,698 16		
	\$ 255,710 64		\$ 255,710 64

I certify the foregoing to be correct.

W. BAKEWELL,

*Treasurer.*

PITTSBURGH, Jan. 7, 1876.

## MEETING OF THE STOCKHOLDERS.

PITTSBURGH, January 13th, 1876.

The Stockholders of the Monongahela Navigation Company held their annual meeting this day, at 2 o'clock, P. M., at the office of the Company, No. 94 Diamond street, Pittsburgh, pursuant to public notice.

The meeting was called to order by the election of H. B. Goe as Chairman.

J. B. Murdoch, M. D., was chosen Secretary of the meeting.

The annual reports of the Board of Managers, Treasurer and Cargo Inspector, for the year 1875, were presented, and on motion, it was

*Resolved*, That the annual reports of the President, Treasurer and Cargo Inspector be accepted, and that they be ordered to be printed in pamphlet form for the use of the stockholders.

On motion of Mr. Harper,

*Resolved*, That George A. Berry, John A. Harper and John Shipton be appointed judges of the election to be held this day for officers of this Company for the ensuing year.

On motion,

*Resolved*, That the stockholders proceed to hold the annual election.

The time for closing the polls having arrived, the judges of election proceeded to count the votes, and announced that the following persons had been duly elected as officers and managers of the Monongahela Navigation Company for the ensuing year:

*President*—J. K. Moorhead.

*Treasurer and Secretary*—Wm. Bakewell.

*Managers*—Felix R. Brunot, John Harper, N. B. Hogg, M. K. Moorhead, John Moorhead, William Morrison, J. B. Murdoch, M. D., James Vecch, Daniel Wallace, M. Whitmore.

The meeting then adjourned.

J. B. MURDOCH,

*Secretary.*

H. B. GOE,

*Chairman.*